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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/191,702	11/13/1998	JEFFREY K. O'HAM	PMS251910	8926

43569 7590 09/16/2004

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EXAMINER

LEUNG, JENNIFER A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/191,702	O'HAM, JEFFREY K.	
	Examiner	Art Unit	
	Jennifer A. Leung	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,7,8,11,12,14,15,17-19,36,38 and 40-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,11,12,14,15,17-19,36,38 and 40-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment submitted on June 14, 2004 has been received and carefully considered. Claims 3-6, 9, 10, 13, 16, 20-35, 37 and 39 are cancelled. Claims 40-45 are newly added. Claims 1, 2, 7, 8, 11, 12, 14, 15, 17-19, 36, 38 and 40-45 remain active.

### ***Response to Arguments***

2. Applicant's amendments and corresponding arguments, filed June 14, 2004, with respect to the rejections of claims 1, 2, 7, 8, 14, 17 and 18 under 35 U.S.C. 102(b) as being anticipated by Derr (US 1,869,844); claims 1, 2, 5, 7, 8, 10, 14, 17, 19 and 36 under 35 U.S.C. 102(b) as being anticipated by Nelson (US 5,325,795); and claims 11, 12, 15, 18, 38 and 39 under 35 U.S.C. 103(a) as being unpatentable over Nelson, either alone or in combination with secondary references, have been fully considered and are persuasive. Therefore, said rejections have been overcome and withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the newly found prior art reference(s).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 7, 8, 11, 14, 17-19, 36 and 40-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795).

Regarding claims 1, 7, 8, 17 and 36, Franz et al. discloses an apparatus comprising:

- (i) a vessel (FIG. 1) comprising a frame (i.e., support frame **5**, having L-shaped carriers **6**; FIG. 1, 16) adapted to receive one or more removable trays (i.e., chamber module **2**, wherein "... flanges (31) exhibit solvable elements (32) for connecting the heating module (1) with the chamber module (2)," see FIG. 1, 2, 7; column 5, sixth paragraph);
- (ii) the one or more removable trays **2** adapted to be inserted in frame **5/6** and comprising a bottom part (i.e., soil carrier **13**; FIG. 1, 15) and peripheral sidewalls (i.e., chamber walls **17**; FIG. 1) extending therefrom, the bottom part **13** being capable of supporting matrices (i.e., bulk material **44**) and being structured so as to define orifices in said bottom (i.e., discharge openings **14**, in the form of "perforated plates or lattice props", essentially defining a screen or slotted base, FIG. 1; column 5, second paragraph);
- (iii) a manifold (i.e., gas departure **46**, for delivering gas from gas collecting area **45** to standard module **4**; FIG. 1, 5) for removal of gases emerging from said matrices **44**; and
- (iv) a heater (i.e., heating module **1**; FIG. 1, 2) positioned in a manner to allow heat to enter the vessel at a position below tray **2** when inserted in said frame **5/6** (see also FIG. 5).

Franz et al. discloses that for the vessel, "The dimensioning is in such a manner selected that a transport with a truck is possible." (column 4, last paragraph). Franz et al., however, is silent as to the dimensioning of tray **2** such that it comprised a loading capacity of about 2.5 cubic yards for holding bulk material **44**. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select the recited loading capacity for the tray in the apparatus of Franz et al., on the basis of suitability for the intended use and absent showing any unexpected results thereof, because changes in size merely involves ordinary

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skill in the art, and a tray having a loading capacity of about 2.5 cubic yards would have been easily transported with a truck, as evidenced by Nelson et al. (see column 32, lines 1-9).

Additionally, Franz et al. is silent as to the manifold **46/4** being positioned on top of the vessel (i.e., within lid **20**). Instead, the manifold **46/4** as illustrated in FIG. 5 is located on the upper portion of side wall **17** in chamber module **2**, adjacent to wall **61** of standard module **4**. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select another appropriate position for the manifold **46/4** (i.e., such as the instantly recited location) in the apparatus of Franz et al., on the basis of suitability for the intended use and absent showing any unexpected results thereof, because the shifting of the location of parts merely involves ordinary skill in the art. Nelson et al. (column 33, lines 49-57; FIG. 25 and 28) evidences the conventionality of providing a manifold (i.e., lid **470** having vapor outlet piping **526**, **466**) on top of the vessel (i.e., container **464**), such that the vapor contaminants generated by the matrices can be removed, more efficiently, along the entire length of the vessel.

Regarding claim 2, Franz et al. discloses means for generating a vacuum (i.e., via vapor pump **49** with engine **50**) for withdrawal of the gases through the manifold **45/46/4**, said means being connected to the manifold (see FIG. 5).

Regarding claim 11, Franz et al. discloses, "The dimensioning is in such a manner selected that a transport with a truck is possible," and "For making a handling possible with usual load devices of container vehicles a coupling rod between the carriers (6)(8) extends beyond that," (column 4, last paragraph). However, Franz et al. is silent as to the tray **2** comprising forklift pockets. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide fork-lift pockets to the tray **2** in the

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apparatus of Franz et al., because the provision of fork-lift pockets to containers for enabling the disclosed transportation of the device using usual loading devices is well known in the art.

Regarding claim 14, as modified by Nelson et al., the manifold of Franz et al. inherently comprises a heat resistant gasket touching said vessel (i.e., check seal **84**, of high grade steel fabric **78**; see FIG. 8, 9).

Regarding claim 18, although Franz et al. is silent as to the apparatus being permanently mounted, it would have been obvious for one of ordinary skill in the art at the time the invention was made to configure the apparatus of Franz et al. to remain in a single location permanently, on the basis of suitability for the intended use and absent showing any unexpected results thereof, because it has been held that permanently mounting a once portable apparatus involves ordinary skill in the art.

Regarding claim 19, because each of the tray (i.e., container module **2**), the manifold (i.e., the standard module **4**) and the heater (i.e., heating module **1**) are modular and removable, each from the other, the manifold is inherently not attached to the vessel when the modular components are separated.

Regarding claims 40, 42 and 45, Franz et al. (Figures; machine translation) discloses an apparatus comprising:

- (i) a vessel having,
  - (a) a heater base (i.e., heating module **1**; FIG. 1, 2), said heater base **1** including one or more tray receptacles (i.e., support frame **5**, having L-shaped carriers **6** for receiving a tray or chamber module **2**; FIG. 1, 16);
  - (b) a multiplicity of heaters or heat emitter tubes (i.e., heat radiating jacket pipe **33**,

- with pipe segments 40; FIG. 2-4) mounted in said heater base 1; and
- (ii) a manifold (i.e., gas departure 46, for delivering gas from gas collecting area 45 to standard module 4; FIG. 1, 5) for removal of gases emerging from said matrices (i.e., bulk material 44);
  - (iii) one or more removable trays (i.e., chamber module 2, wherein "... flanges (31) exhibit solvable elements (32) for connecting the heating module (1) with the chamber module (2)," see FIG. 1, 2, 7; column 5, sixth paragraph) adapted for insertion in said tray receptacle 5/6 above said multiplicity of heaters 33/40, said one or more removable trays 2 having,
    - (a) a bottom part (i.e., soil carrier 13; FIG. 1, 15), said bottom part 13 capable of supporting said matrices 44 and structured so that the orifices (i.e., discharge openings 14, in the form of "perforated plates or lattice props", essentially a screen; FIG. 1; column 5, second paragraph) are defined in the bottom part; and
    - (b) peripheral sidewalls (i.e., walls 17; FIG. 1) extending from the bottom part 13;wherein, upon insertion of tray 2 in said tray receptacle 5/6, peripheral sidewalls 17 of said one or more removable trays 2 effectively form the sides of said vessel (see FIG. 1).

Franz et al., however, is silent as to said manifold 46/4 being positioned over the heater base 1 (i.e., within lid 20). Instead, the manifold 46/4 as illustrated in FIG. 5 is located on the upper portion of the chamber module 2 side wall 17, adjacent to the standard module 4 wall 61. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select another suitable position for the manifold 46/4 (i.e., such as the instantly recited location) in the apparatus of Franz et al., on the basis of suitability for the

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intended use and absent showing any unexpected results thereof, because the shifting of the location of parts merely involves ordinary skill in the art. Nelson et al. (see column 33, lines 49-57; FIG. 25 and 28) evidences the conventionality of providing a manifold (i.e., removable lid **470** having vapor outlet piping **526**, **466**) that is positioned on top of the vessel (i.e., container **464**), such that the vapor contaminants that are generated by the matrices can be removed along the entire length of the vessel, in the vapor space above the matrices.

Regarding claim 41, Franz et al. discloses means for generating a vacuum (i.e., via vapor pump **49** with engine **50**) for withdrawal of the gases through the manifold **46/4**, said means being connected to the manifold (see FIG. 5).

Regarding claim 43, Franz et al. discloses that for the vessel, "The dimensioning is in such a manner selected that a transport with a truck is possible." (column 4, last paragraph). Franz et al., however, is silent as to the dimensioning of tray **2** such that it comprised a loading capacity of about 2.5 cubic yards for bulk material **44**. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to select the recited loading capacity for the tray **2** in the apparatus of Franz et al., on the basis of suitability for the intended use and absent showing any unexpected results thereof, because changes in size merely involves ordinary skill in the art, and a tray having a loading capacity of about 2.5 cubic yards would have been easily transported with a truck, as evidenced by Nelson et al. (see column 32, lines 1-9).

Regarding claim 44, Franz et al. discloses, "The dimensioning is in such a manner selected that a transport with a truck is possible," and "For making a handling possible with usual load devices of container vehicles a coupling rod between the carriers (6)(8) extends beyond that," (column 4, last paragraph). However, Franz et al. is silent as to the tray **2**



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comprising forklift pockets. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide fork-lift pockets to the tray **2** in the apparatus of Franz et al., because the provision of fork-lift pockets to containers for enabling the disclosed transportation of the device using usual loading devices is well known in the art.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795), as applied to claim 1 above, and in further view of Sewell et al. (US 682,118).

Franz et al. is silent as to a means for mechanically agitating the matrices, positioned in the interior and connected to the vessel. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a mechanical agitating means to the vessel of Franz et al., on the basis of suitability for the intended use, since it is well known in the art that agitation during heating facilitates the vaporization of contaminants present in the matrices, as evidenced by Sewell et al. In particular, Sewell et al. teaches an apparatus for the destructive distillation of contaminants present in garbage, i.e., soil, wherein the apparatus comprises receptacles **A**, each having a grate-bottom **D** and a stirrer-shaft **E** with arms **E'**, whereby the garbage may be agitated during the distillation (page 1, lines 16-25, 46-76).

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795), as applied to claim 1 above, and in further view of Schultz et al. (US 4,924,785).

Franz et al. discloses it is undesirable to release contaminants into the atmosphere, and therefore destroys the vaporized contaminants from the matrices **44** via burning with flame **37** in flame tube **38** (FIG. 4; column 10, lines 64-63). Franz et al., however, is silent as to the manifold

comprising a 1 to 100 micron dry filter. In any event, it would have been obvious for one of ordinary skill in the art at the time the invention was made to provide a 1 to 100 micron dry filter to the apparatus of Franz et al., on the basis of suitability for the intended use (i.e., for recovering particulates inherently entrained in the vaporized contaminants prior to exhaust) and absent showing any unexpected results thereof, because the provision of a filter to prevent the discharge of particulates into the environment is conventionally known in the art. Schultz et al. evidences conventionality by teaching an apparatus for pyrolyzing waste material, wherein the manifold (i.e., exhaust headers **82**, **120**; FIG. 5) connected to the top of the heated vessel having removable trays (i.e., baskets **50**; FIG. 5, 6; column 13, lines 3-17) further comprises a conventional scrubber or filter **121** (column 17, lines 55-61), to collect any volatiles present in the exhaust. Although a 1-100 micron dry filter is not expressly taught, the use of such commercially available filters (i.e., high-efficiency, or HEPA filters) is well known.

6. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franz et al. (DE 196 08 002) in view of Nelson et al. (US 5,325,795), as applied to claim 1 above, and in further view of Nora et al. (EP 0 695 214).

Franz et al. discloses the lid **20** (i.e., containing the manifold portion, as modified by Nelson et al. above) comprises a plurality of means (i.e., lifting eyes **65**) for lifting of the lid **20**, and hence the manifold, from the removable tray **2**. Although Franz et al. is silent as whether the means for lifting **65** may instead comprise a hydraulic cylinder positioned under the manifold, it would have been an obvious design choice for one of ordinary skill in the art at the time the invention was made to substitute other known, equivalent means for facilitating lifting of the manifold portion from the vessel/tray in the modified apparatus of Franz et al., on the basis of

suitability for the intended use and absent showing any unexpected results thereof, because the substitution of known equivalent structures involves only ordinary skill in the art. To evidence the conventionality of such lifting means, Nora et al. teaches an apparatus comprising a basket **C** having a casing **1** and cover **10**, wherein casing **1** and cover **10** are detachable from basket **C** by manner of a lifting means, preferably comprising pneumatic cylinders **12** (FIG. 5, 6, 7).

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

\* \* \*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Leung whose telephone number is (571) 272-1449. The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

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supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer A. Leung

September 9, 2004 



**HIEN TRAN**  
**PRIMARY EXAMINER**